THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte YUJI ARATAKI
and TETSUJI NAKAZAWA

Appeal No. 1997-1323
Application No. 08/117,997

ON BRIEF

Before THOMAS, HAIRSTON and RUGGIERO, Administrative Patent Judges.

HAIRSTON, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1 through 12.

The disclosed invention relates to a method and an apparatus for counting the number of off-track signals that occur within a predetermined period of time in an optical disk

apparatus.

Claim 1 is illustrative of the claimed invention, and it reads as follows:

1. An optical disc apparatus comprising:

an optical pick-up for irradiating a light beam onto a disc recording medium, and recording information to said disc recording medium;

tracking error signal generating means for generating a tracking error signal responsive to a magnitude of a portion of said light beam which is reflected from said disc;

comparing means for comparing said tracking error signal with a predetermined reference level and generating an output signal when said tracking error signal and said reference signal are in a predetermined condition relative to each other;

off-track signal generating means for generating an off-track signal the level of which is changed when said light beam is dislocated from the track;

latch means for latching said off-track signal responsive to the output signal from said comparing means and outputting a latched off-track signal;

count means, coupled to receive the latched off-track signal, for outputting a count signal indicating the number of latched off-track signals received;

reset means for initializing said count means and said latch means;

a decoder coupled to receive the count signal and output a tracking-jump detection signal responsive to said count signal being more than a predetermined value; and

control means for changing a magnitude of the light

beam jump of said optical pick-up responsive to said tracking-detection signal.

The references relied on by the examiner are:

Takasago et al. (Takasago)	4,730,290	Mar. 8, 1988
Yoshida et al. (Yoshida)	5,012,461	Apr. 30, 1991
Yamamiya et al. (Yamamiya)[1] (Japanese Patent Application)	63-121137	May 25, 1988

Claims 1, 2, 4 through 6, 8, 9 and 11 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Takasago or, in the alternative, under 35 U.S.C. § 103 as being unpatentable over Takasago.

Claims 3 and 10 stand rejected under 35 U.S.C. § 103 as being unpatentable over Takasago in view of Yamamiya.

Claims 7 and 12 stand rejected under 35 U.S.C. § 103 as being unpatentable over Takasago in view of Yoshida.

Reference is made to the briefs and the answers for the respective positions of the appellants and the examiner.

OPINION

All of the rejections are reversed.

[1] A copy of the translation of this reference is attached.

In Takasago, when a detector detects that the center of the light spot from the laser 41 is not on the centerline of a track on disk 1 for a predetermined time period, a tracking error signal is generated to stop recording, and to generate an off-track signal (column 1, lines 33 through 42). The off-track signal is caused by shock to the apparatus (Figure 1) or by a defect on the disk (column 1, lines 61 through 63). Takasago recognizes that the data should be re-recorded in another portion of the disk during such an off-track condition (column 1, lines 42 through 54). In Takasago, the off-track signal is analyzed
in two stages or two time periods T_1 and T_2 (column 3, lines 28 through 51). A tracking error in Takasago is detected by light detector 6, and the tracking error signal from differential amplifier 7 is applied to the + and the - inputs of differential amplifiers/comparators 17 and 18,
respectively, where it is converted into a pulse having a level of “1" (column 5, lines
47 through 59). In the absence of a tracking error signal, the output from the comparators 17 and 18 is level “0" (column 5, lines 59 through 61). Thereafter, the tracking error pulse

signal level “1" is applied to a time-width detector 24 to check the time duration of the level “1" pulse. If the pulse exceeds the first time period T_1, then laser operation is stopped, and if the pulse exceeds the second time period T_2, which is longer than T_1, then a signal is generated indicating an off-track condition (Abstract; column 5, line 67 through column 6, line 11).

Appellants argue (Brief, page 6) that:

> [W]hile Takasago teaches an apparatus which attempts to distinguish between an off-track condition caused by an abnormality in the disk and an off-track condition caused by an abnormality in the operation of the disk apparatus, it does so by measuring the time duration of the off-track condition. The present invention, on the other hand, bases its decision on the number of tracks jumped, regardless of the time duration of any off-track condition.

We agree with appellants' argument that the measurement of time duration of the pulse signal "1" is not the same as counting the number of such pulses that occur during a predetermined time period. In summary, the 35 U.S.C. § 102(b)/35 U.S.C. § 103 rejections of claims 1, 2, 4 through 6, 8, 9 and 11 are reversed because Takasago neither teaches nor would have suggested the claimed counting of off-track pulses.

The 35 U.S.C. § 103 rejections of claims 3, 7, 10 and 12 are reversed because the teachings of Yamamiya and Yoshida do not cure the noted shortcomings in the teachings of Takasago.

DECISION

The decision of the examiner rejecting claims 1, 2, 4 through 6, 8, 9 and 11 under 35 U.S.C. § 102(b) is reversed, and the decision of the examiner rejecting claims 1 through 12 under 35 U.S.C. § 103 is reversed.

REVERSED

	)	
JAMES D. THOMAS	)	
Administrative Patent Judge	)	
	)	
	)	
	)	BOARD OF PATENT
KENNETH W. HAIRSTON	)	
Administrative Patent Judge	)	APPEALS AND
	)	
	)	INTERFERENCES
	)	
JOSEPH F RUGGIERO	)	
Administrative Patent Judge	)	

KWH:hh

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